



STAFF REPORT

Discussion and Direction for Recommended Changes to the Neighborhood Traffic Calming Program

July 22, 2003

Honorable Mayor and City Council:

Summary

This report provides a discussion of various aspects of the Neighborhood Traffic Calming Program and makes specific recommendations on changes to the Program.

Background

City staff was requested to review the existing Neighborhood Traffic Calming Program and make recommended changes, if any, to the Program based upon the City's experiences with the Hastings Drive Traffic Calming project and other relevant traffic engineering experience.

The Neighborhood Traffic Calming Program was developed to enhance the safety and livability of Belmont's residential and collector streets. The Program defined the process for City staff to respond to neighborhood traffic issues. The Program recognized the effectiveness of traffic control devices like STOP signs are only as effective as the level of enforcement provided. Traffic calming measures are "self-enforcing" and influence driver behavior on a 24-hour a day basis, 7 days a week.

Existing Traffic Calming Policy

In January, 2000, City Council adopted the Neighborhood Traffic Calming Policy. The objective of the Traffic Calming Program was to calm traffic, as opposed to controlling traffic. The focus of the Traffic Calming measures was to alter the physical shape of the roadway to inhibit vehicle speeds through the use of vertical (speed humps) and horizontal measures that make the roadway more difficult to travel at high speeds.

CRITERIA

Program assumed no difference between a local residential street and a collector street. The following criteria for implementing traffic calming measures was established:

Travel Speed: The goal is to reduce the peak speeds to less than 15 mph over the posted speed limit and critical speeds to under the posted speed limit. The “Critical” speed in excess of posted speed by 5 mph.

Traffic Volume: The goal is to reduce street volumes to below 1000 vehicles per day.

Cut-Through Traffic: The goal is to reduce “cut-through” traffic to below 20 percent.

Emergency Response Routes: No traffic calming devices are to be installed on designated emergency response routes. The maximum travel time for the first-arriving fire company shall be 5 minutes for 80% of all emergency incidents.

Impacted Areas: City staff will determine the impact of implementing traffic calming measures along a street on adjacent intersections and street segments.

The review of the Neighborhood Traffic Calming Program, the analysis of traffic data collected on various streets throughout the City, and the lessons learned from the Hastings Drive Traffic Calming project indicate the overall traffic calming program needs to be modified.

The following provides a discussion of each of the existing criteria defined in the existing Neighborhood Traffic Calming Program and makes recommended changes, if any, to the criteria:

Travel Speed Criteria Discussion:

The existing policy reads that the goal is to reduce peak speeds to less than 15 mph over the posted speed limit and critical speeds under the posted speed limit.

The existing Program uses a threshold of 5 mph over the posted speed as the criteria for implementing traffic calming. In addition, the Program reads “High peak speeds are a more serious safety and livability issue than ‘Critical speed’. Most traffic calming measures will have a more dramatic impact on reducing peak speeds than ‘Critical’ speeds.”

All local residential streets have a prima facie speed limit of 25 mph. The only streets that require the posted speed to be based upon an engineering and traffic survey are arterial and collector streets. Arterial streets are not addressed in the Program.

The Speed Hump Policy adopted by City Council has defined the minimum speed criteria for installation of speed humps along a street as having a “speed survey which shows that 15% or more of the traffic travels in excess of 32 mph on a local residential street.” This provision is in conflict with the criteria to install horizontal traffic calming devices.

The second criteria is to reduce the peak speed to less than 15 mph over the posted speed limit. This would mean that the goal was to reduce the speeds of all vehicles to less than 40 mph on a local residential street. The traffic speed data collected throughout the City on local and collector streets indicates in most cases that less than 1 percent of the traffic exceeds 40 mph and less than 5 percent of the traffic travels at speeds in excess of 15 mph over the speed limit.

The traffic calming devices must be designed to facilitate large trucks like moving vans and emergency vehicles. The facilitation of large trucks and emergency vehicles will not affect the one percent of the vehicle drivers traveling at 15 mph greater than the speed limit.

Collectors are the only streets covered within the Program that require posted speed limits. The Police Department when using radar usually will not cite a vehicle driver unless they are traveling more than 8 mph over the speed limit.

Recommended Change to Travel Speed Criteria:

It is recommended the Neighborhood Traffic Calming Program Travel Speed criteria be changed to read the following:

“Traffic calming may be considered on local residential streets with a “Critical” speed greater than 32 mph and on collector streets with a “Critical” speed greater than 8 mph over the posted speed.”

Traffic Volume Criteria Discussion:

The premise that is used in the existing Program indicates, “Residential streets are designed to accommodate traffic volumes of 1000 vehicles per day”. The Program further indicates “Volumes in excess of this amount often to cause aggressive behavior in drivers and congestion at local intersections. They also tend to create difficulty in safe pedestrian crossings of the street.”

Residential streets are designed to accommodate the number of residential dwelling units along the street, not an arbitrary value of 1000 vehicles per day. A typical single-family residence will generate approximately 10 vehicle trips per day. The Hastings Drive Traffic Calming program affected 158 dwelling units between Cliffside Court and Witheridge. Therefore, it would be expected at least 1580 vehicle trips per day would travel along this section of roadway.

There has been no traffic engineering study that has drawn the correlation between the volume of traffic over 1000 vehicles and the effect the volume has on driving behavior. The physical conditions of the roadway and the area adjacent to the roadway are the only characteristics that have been demonstrated to affect vehicle driver behavior.

Volume tends to impact the ability of pedestrians to safely cross a street when the average daily traffic exceeds 10,000 vehicles per day.

Recommended Change to Traffic Volume Criteria:

It is recommended the Neighborhood Traffic Calming Program definition for traffic volume be as follows:

“The acceptable traffic volume traveling along a street segment shall be calculated based upon trip generation rates for the total number of dwelling units and other land uses that are on the street segment plus the land uses on any side street that must use the street segment to access the area residents’ property. The Institute of Transportation Engineers Trip Generation Manual shall be used to determine the trip generation rates for the land uses. Traffic calming will be considered if the measured traffic volumes exceed the acceptable traffic volume by 20 percent.”

Cut-Through Traffic and Emergency Response Routes Discussion

The current criteria indicates that streets where cut-through are a problem will usually exhibit cut-through volumes in excess of 20 percent. The current Program also indicates that the traffic calming devices will not increase the maximum travel time of the first arriving fire company vehicle to a potential incident. City staff concurs with these standards.

Impacted Areas Discussion:

The Program indicates City staff will evaluate on a case-by-case basis what the impacted area will be dependent upon the type of traffic calming device being proposed. No changes are recommended to this portion of the policy.

POLICY GUIDELINES

City staff has no recommendations as to changing any of the Policy Guidelines except to reflect the recommended changes for the minimum base criteria for installation of traffic calming measures as discussed in the previous section.

IMPLEMENTATION PROCESS

The existing Program indicates the following process for the request, evaluation, trial implementation and permanent implementation of traffic calming devices along a street segment:

1. Requests for traffic calming must be received from a neighborhood association or by a petition signed by 25 percent of the households in the area where action is requested.
2. City staff determines whether or not the minimum eligibility criteria are met.
3. The residents are surveyed to determine if a six-month trial installation should be implemented. Trial implementation requires a simple majority (50+ percent).
4. A permanent installation requires support of a super majority (67 percent) of the affected residents.

A significant amount of staff time and expense goes into evaluation, facilitation and implementation of any request for traffic calming devices. The overall success of any traffic-calming program relies on a very high level of support from the affected residents. A simple majority tends to perpetuate any concerns about traffic and any traffic calming devices installed.

The Hastings Drive Traffic Calming project best illustrates this point. There was not strong support or wide spread involvement of the residents requesting traffic calming. Without that support the process went sideways quickly and a greater effort was required by City staff to address the residents concerns.

Recommended Change to Implementation Process:

It is recommended the application/petition and the six month trial installation requirements be increased to a super majority (67 percent) of all the affected residents. This requirement will minimize the time and expense to the City for traffic calming along streets where there is not strong neighborhood support.

ELIGIBILITY REQUIREMENTS FOR TRAFFIC CALMING SURVEYS

The existing Program indicates the following criteria for conducting surveys:

- Simple local street projects that do not include street closures or diverters, only those households located on the traffic-calmed street(s) will participate in the survey.
- Measure proposed for intersections, households on the intersecting street up to one block in each direction would be surveyed.
- Street system projects, complex projects, projects including street closures or diverters, and neighborhood studies, all impacted area households will be eligible to participate in

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- the survey (i.e. residents of the street(s) plus any adjacent street(s) affected by traffic diversion)

One response per household is allowed regardless of the number of people in the household. Non-residential property owners and households on other project area streets will not participate in the survey.

There was confusion with the surveying process for both the Hastings Drive and the Chula Vista traffic calming projects as to who is eligible to vote. There are residents who may not live along the street being considered for traffic calming, however, they must travel along the street to get to their home.

One example is whether or not the residents living on the cul-de-sacs along Hastings Drive could vote. In fact, they did get to vote through the survey. Another example is whether or not the residents who live along Solana Drive, Desvio Way, Altura Way, Escondido Way, Fernwood and El Verano should have the right to vote regarding traffic calming along Chula Vista. With the exception of Fernwood and El Verano, residents living along these streets have no choice but to travel along Chula Vista Drive.

Recommended Change to Eligibility Requirement for Survey:

It is recommended that all residents who have to travel along a street being considered for traffic calming to access their residence shall be eligible for any surveys for the trial and/or permanent installation of traffic calming devices.

FUNDING

The Program indicates the City budgets \$25,000 per year in the Capital Improvement budget for initial studies and for limited trial installations of traffic calming measures. Trial installations will be implemented, up to the budgeted amount, as they are approved after completing the process identified in the Program.

The funding for permanent installations will be considered by the City Council after successful completion of the trial installations, based on surveys conducted after the trial period.

Participation in funding by grant programs or by others will be considered in expediting permanent construction of a project. If residents want to speed up the installation process, the City will consider full resident or property owner funding of a traffic-calming project.

The major policy issue is whether or not existing Measure A funds should be used to address the quality of life issues associated with traffic calming in a particular neighborhood. This is especially true if traffic conditions have not drastically changed throughout the City in the past

25 years and the residents who have moved to a location with existing traffic conditions now want those conditions changed.

Recommended change to funding program:

It is recommended the Program be changed to indicate that City staff will attempt to obtain grant funding for any trial and/or permanent traffic calming installation. However, if no grants are available, the residents will be required to pay through voluntary contributions and/or a benefit

assessment district for any trial and/or permanent traffic calming installations. The cost of the installation shall include the cost of maintaining any installed device above and beyond normal street cleaning provided by the City.

Fiscal Impact

This report has no financial impact.

Conclusion

It is recommended City Council discuss and provide direction to City Staff on the recommended policy changes to the Neighborhood Traffic Calming Program.

Attachment

1. Neighborhood Traffic Calming Program

Respectfully submitted,

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